

# 432 MHz AND ABOVE EME NEWS

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- THE WEB VERSION OF THIS NL IS PRODUCED BY W6/PA0ZN AND AVAILABLE AT: <http://www.nitehawk.com/rasmit/em70cm.html>

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## CONDITIONS:

This NL is being writing only a few hours after the close of EME VII - the '96 International EME Conference. This conference was another gem in a string of great successes. 74 EMEers attended with DL, F, G, HB, HL, I, PY, S56, SM, VK, ZL and ZS represented, along with a large contingent of the NA moonbounce community. BR> W1ZX, who organized the overall conference, and AA4TJ, who organized the program deserve special thanks for their superb efforts. The F1HRY group received a green light to proceed with plans for EME IIX in '98 near Paris.

The only negative was a feeling on the part of some attendees that EME activity is on the wan. A carefull look at the Aug reports will show that this is not the case - see the reports as those of 7M2PDT's on 70 cm or W2UHI's on 23 cm which show multiple initials and a good stream of QSOs. The ARRL EME Contest date problems appear to be solved - as indicated by the ARRL's Contest Coordinator, KR1R's presence and

presentation at EME VII. I am looking forward to a great fall EME seasons with lots of contest participation.

#### **7M2PDT:**

Shu reports on his Aug results -- I had HPA troubles and was QRT for one month, from Jun to July. The problem was cleared up in mid July, and I came back 432 EME for the Aug SW. I worked on 3 Aug W7HAH for the initial #34, DF6NA #35, DJ6MB #36, DF3RU #37, IW5AVM #38 and OZ4MM #39, and on 4 Aug K1FO, WA4NJP #40, K0RZ and K5JL #41.

#### **AA6WI:**

Hoppy's July-Aug 23 cm EME activity report follows -- I worked on 14 July EA6/DF5JJ, on 18 July Sun noise 10.3 dB with 3.7 m dish, on 19 July W2UHI (2 times), on 20 July Sun noise 10.9 dB after realigning feed, added DJ9YW and W2UHI, on 3 Aug KB2AH, HB9BBD, OE9XXI, G4DZU and F6CGJ, and on 4 Aug W2UHI, WD5AGO, VE1ALQ, EA6/DF5JJ, IK3COJ, F2TU and F6CGJ. Others heard were G4DZU and OE9XXI on SSB with (S6) signals!

#### **G3HUL:**

Ray (W2RS) writes that he operated, along with Pat (G3IOR) and Doug (G3HUL), the G3HUL station in Aug SW [?] -- Conditions were not the best this morning, but we worked 4 stations: 0633 UR5LX, 0709 SM3AKW, 0718 W7HAH for initial #106 and 0735 SM2CEW. Heard were K0RZ, DF3RU (calling us at 0718) and W0KJY (working W7HAH at 0930). We measured about 12.5 dB of Sun noise and had fairly good echoes at times, but Faraday wasn't too friendly. [Doug advises that since the latest modifications to his array, he has typically gotten around 14 dB of Sun noise, but 12.5 dB was what we measured this morning.]

#### **G3SEK:**

Ian writes -- After last month's disaster to my az-el displays, which kept me off the moon, the August SW was much better. The DVM modules have been repaired and the new computerized moon/sun tracking system is working FB. This uses a PIC module programmed in BASIC, and after the initial startup it runs completely independently of the main PC. The not-so-good news is that this particular PIC module with a 12-bit ADC costs over \$300 (I got just one at "the right price"), so there doesn't seem any point in publishing the full details. It might be possible to do something similar with a Basic Stamp 2, if anybody is familiar with these devices. After one weekend I am completely sold on the idea of auto-tracking! Activity during the SW was not so good because of the unsociable hours, and also maybe because of the upcoming Conference. Also conditions were not good, with most signals suffering from loss due to polarization spreading. I worked on 2/3 Aug JA4BLC (449/549), SM3AKW (339/549), KA0RYT (549/O), N4PZ (449/O) #243, OZ4MM (559/539) #244,

DF3RU (449/549) and G3HUL (339/O), and on 3/4 August DF6NA (O/O), JA2KRW (449/449), UT7VF (O/O), just missed K1FO's last CQ (sorry Steve), W7HAH (O/O) and I5CTE (O/M). Rob, G4ALH and Wendy, G6AAD had a son Mark in July. [Congraduations to G4ALH.]

#### **HB9BBD:**

Dominique's report -- Its a long ago since my last report. I had lots to do in my QRL, lot of travelling and many jobs in the shack too. I rebuilt my EME equipment: New transverter with 28 MHz IF., new sequence control and relay unit, new RF. deck with driver amp and some comfort circuits for the operator. All is finished now and does the job. I hate surprises in the shack - rotten relay contacts, broken lines and all that. This is the past now and it is a pleasure to operate again. Furthermore, a remote controlled colour camera with zoom allows me to watch the moon in clear sky and the Swiss mountains when working tropo. My log on 23 cm: 20 April OH2AXH (539/559), DJ9YW (419/539), EA6/DF5JJ (559/559), N2IQU (529/549), SM5DGX (319/529) for initial #69, W2UHI (529/539), KB2AH (579/559) and G4DZU (319/M) #70. on 21 April ZS6AXT (529/569), EA6/DF5JJ (539/529), partial W2UHI (429/?), KB2AH (579/559) and OH2AXH (539/549), on 26 May ZS6AXT (529/559), on 6 July KB2AH (569/no rprt), AA4TJ (529/549) - a beautiful surprise, W2UHI (529/549), on 7July OZ4MM (569/569), PA3CSG (559/559), AA6WI (529/549), EA6/DF5JJ (549/559), W2UHI (529/549), on 20 July W2UHI (529/549), and on 21 July DD1XF (529/449). QSLs are still very much needed from: K5JL, VE1ZJ, LX1DB, S59DCD, DD1XF, F5AQC, IY4ARI, EA9/EA3UM, W2UHI, K3EAV, F1SDR, SM5DGX, and PA3CSG.

#### **HB9SUL:**

Andrea made 9 QSOs on 70 cm during last ARRL EME Contest, but shortly there after had to take down his EME array. He has spent the last 6 month in VK4-land, but is now back (JN46la) and putting up his array again. He expects to be QRV with 4 x 38 el yagis and 500-600 w at the feed from an RIW PA, by Oct. His moon window is limited to el > 25 deg on moonrise and > 7 deg on moonset.

#### **JA4BLC:**

Yoshiro e-mails -- Last weekend (Aug 3/4), I worked on 432 OZ4MM on random for initial #231. I was very pleased as this QSO accomplish 4 band EME QSOs, 144-2304/2424, with Stig. Other 432 contacts were with SM3AKW (both days), G3SEK and JA2KRW. On 1296 I worked F6CGJ, OE9XXI (on CW and SSB) and ZS6AXT. I need suggestions for an EME operating frequency for the 24 GHz band. We Japanese have 24.000-24.050 GHz for amateur radio use. What are the 24 GHz frequency allocations in other parts of the world?

**JA2KRW:**

Tokuichi worked during the Aug SW: KD4LT, JA2TY for initial #95, JR4AEP, JA4BLC, G3SEK, YO2IS #96, DF3RU, OZ4MM, CWNR JH4JLV, SM3AKW and IW5AVM (Good Signal!). Heard were W7HAH, JS3SIM and 7M2PDT.

**OE5JFL:**

Hannes reports that his EME activity has not been very high due to family commitments and the fact that he must drive 100 Km to get to his EME shack and back. Everything continues to work FB. He was very pleased to work on 7 July YL3AG/A on 23 cm. He also notes another accomplishment, the running of the Vienna City Marathon to celebrate his 45th birthday! Hannes also includes information on a new antenna control system which appears at the end of this NL.

**OZ4MM:**

Stig's report for the Aug activity weekend -- I was QRV on 432 for a few hours during the SW and worked on 3 Aug NP4Z (549/549) for initial #75, W8MQW (539/559) #76, G3HUL(539/559), G3SEK (539/559) #77, DF3RU (559/559), I5CTE (429/449), YO2IS (429/559), 7M2DT (539/O) #78 and JA4BLC (549/449) #79, and on 4 Aug JR4AEP (439/449) #80, JA2KRW (539/559) and UT7VF (439/O) #81. During moonrise on the 4th, I found fast pol shift on signals.

**VE1ALQ:**

Darrell says -- Not much to report from the Aug SW. I did work 17 stations, but no initials. NIL was heard on any of my skeds, although I was hearing 3 m dishes. Condx appeared to be excellent, a bit of fading at times, but nothing drastic. Had a FB SSB QSO with Peter, OE9XXI. I do not remember hearing Peter as strong before. My driver is non-linear so I expected that to sound like heck, but surprisingly my own echoes sounded not bad at all. One thing I do notice, when conditions are good, is that SSB on 23 cm takes a large hunk out of the lower 20 KHz of the band - HI. My scheduling on 23 cm does not appear to work out very well, so if there are stations out there that I have not worked on 23 cm, I am asking that they please setup a sked time. I am usually here 24 hrs a day 7 days a week.

**W2UHI:**

Frank regarding the Aug SW writes -- I had a problem with water in the transmit line connector Saturday morning as the result of a heavy rain storm Friday eve. I didn't know about the problem till moonrise when I fired up the station - that was at 0500 and too late to fix. I did get it taken care of Saturday and was ready with bells on for the 2nd day's activity. On 1296 beginning at 0503, I worked the following: HB9BBB, ZS6AXT, VE1ALQ, WD5AGO, G4DZU, EA6/DF5JJ, KB2AH, IK3GHY for initial #65, PA3CSG #66, AA6WI,

WD5AGO - repeat on SSB, F6CGJ, OE9XXI on SSB, F2TU and IK3COJ. None of these contacts were marginal. The new 5.5 m dish is working great, and I had a great time. I quit at about 0845 after called CQ during the Asian window for about 45 minutes with nil results.

#### **W7HAH:**

Shep's 432 EME Report -- I worked on 6 July G4FUF for initial #168, on 3 Aug JS3SIM #169, 7M2PDT #170, K0RZ, UR5LX, DF3RU, G3SEK, VE6TA #171, W0KJY and partial NI7Z (O/-) - he had feedline problems. Condx appeared to be fair. [He also mentions G3HUL.] My 1296 EME dish is coming along slowly due to lots of company and very hot WX.

#### **YO2IS:**

Szigi writes -- I want to send my TNX for QSL cards to those EMEers who have helped me to get closer to my goal of 100 QSLs on 432 EME: DJ9DL, G3HUL, EA3UM, OZ4MM and JA5OVU. I also need QSLs from 9M2BV and CN2EME (both relative new ones). I now have now 95 QSLs and 130 initials. I am particularly interested in cards from RA3YCR, OZ7UHF, F2TU, DK3BU and I5MPK. I was QRV in May and hrd JA2KRW with solid (O) signals, nil from 7M2PDT. Both these skeds were arranged via e-mail. On 25 May at 1845 hrd SM2CEW (559) - activity was low, and on 26 May Nil from JS3SIM and nice QSO at 1430 JA5OVU (O/O). In the July SW, I did make my sked with EA6/DF5JJ due to a 6 m Es opening!. On 6 July I had partial with EA6/DF5JJ (O/M) but never got Rs. Lost again my sked with JA2KRW as I was transmitting 100 KHz too high - bad glasses and a small digital readout. Its a pity he stopped after 20 min, when I realized my mistake, and did come to the right QRG. It seems that there is some regress in interest in EME ... not many new comers. To much philosophy, and to big the gap between the top and the followers. We have to keep the traditional way of running this hobby. Its like the sailor, who uses GPS, radiocompas, etc. but is sailing in the traditional manner. That keeps things alive. No need to get machines in our place to read out from the noise the weak EME signals and give reports. Like everywhere now a days, FASHION and commercial publicity is ruining tradition, talent and high skills. Give a chance for the "little pistol" to find his place in the chorus of "big guns" in EME. We need them also. I will try to be QRV all the next SWs. Skeds are always welcome, and dont forget if QSO succeeds, QSL is my prime interest!

## **NETNEWS**

**NA4N** had expected to be QRV on 70 cm in Aug, but a lightning strike has delayed his plans. He has 8 x 22 el yagis, but not much power. He hopes to have a repairs and a KW by the Fall.

**K4QIF** reports the concrete footing have been poured for his dish mount, and the tower section mail as a partial solution to his net/skeds is now in place.

**VK6ACY** is working on an EME station.

**KB3PD** has a new e-mail address .

**PA0PLY** (with PA0JCA) has thier 6.4 m dish mounted but are hoving trouble with the motor control. The 23 cm PA is putting out 400 w. On 3 cm they have 200 w from a TWTA!

## FOR SALE

JA4BLC is looking for used but **good TH308 or TH328 tube** at a reasonable price, for use in a 1296 PA. Yoshiro can be reached at TEL/FAX +81-852-24-0889 or [JA4BLC](mailto:JA4BLC)

G3SEK's book [The VHF/UHF DX Book](#) is now available from ARRL.

KB2AH is producing **VE4MA like 1296 feeds** with built-in IMU type circular polarizer. He also has **a complete line of 1296 HPAs** (6, 4, 2 or 1 x 7289 amps) available.

## TECHNICAL

Besides info on OE5JFL's new antenna controller, I have received some comments from K4QIF on KB2AH's UPX-4 modifications which appeared in the June NL. Rusty agrees with many of Tom's suggestions, and notes that much of his approach is similar to his 4 x 7289 amplifier design. Rust, however, does not feel you can do away with the use of a slug tuner when using an inductive output coupling loop. He believes Tom may have been "just lucky" with his transmission line lengths. He feels that the use of an adjustable captive probe is the real solution to efficiently coupling energy out of the cavity. He also recommends investigating neutralization to improve cavity performance - possibly by breaking out grid contact ring fingers. Using this approach he was able to make a YU129 cavity PA tune like an 80 m amp, i.e., good, symmetrical dip in plate current with maximum power output right in the bottom of the dip.

FINAL: This NL is a bit short as many of the regulars were at the EME Conference and have not yet returned to get in there reports. It is also a bit rushed as most of my weekend was spent at the conference. There is no activity report as I did not returned from my trip to Isreal in time for Aug SW operation. While there, I did talk to 4X4IF.

Ralph is QRV on 70 cm and willing to take skeds. I plan to be QRV for the Sept SW and will be looking for you off the moon.

73, Al - K2UYH

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[Micro Wave Update Information Page by Jim, WA7CJO](#)

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Note: The following skeds were not included in the ASCII file from Al..  
These were inserted by KD4LT as compiled by Klaus....

Sked requests for AUG 31, # = station possibly not active

Time	432.040	432.045	432.070	1296.050
0300z				W2UHI - KB3PD
0400z	VE6TA - WA9FWD	W2CRS - G4FUF		
0430z	G4FUF - OH3LWP	VE6TA - W7GBI		
0500z	VE6TA - HA1YA	N4PZ - G4FUF		
0530z	VE6TA - EA3UM	KA0RYT - G4FUF		
0600z	VE6TA - DL9NDD	WA4NJP - G4FUF		
0630z	VE6TA - PY5ZBU	G3SEK - EA6/DF		
0700z	PY5ZBU - G3SEK	VE6TA - EA6/DF		
0730z	PY5ZBU - G4FUF	W7HAH - LU7DZ		
0830z		W7HAH - HP3XUG		
1200z	VE6TA - VE1ALQ		JA2KRW - HP3XUG	
1230z			JA2KRW - K3HZO	
1300z		WE7P - W7HAH	JA2KRW - K5JL	
1330z		JR9NWC - W7HAH		
1400z			JA2KRW - VE6TA	
2130z			VK5MC - JA2KRW	
2200z			IW5AVM - JA2KRW	
2300z			G4FUF - JA2KRW	

Sked requests for SEP 1, # = station possibly not active

Time	432.040	1296.050
0630z	W9QXP - G4FUF	
1200z		WA4NJP - KB3PD
1230z		WA9FWD - KB3PD
1300z		JR4AEP - VE1ALQ

Sked requests for SEP 7, # = station possibly not active

Time 432.070

0200z G4FUF - VK5MC  
0230z G4FUF - 7M2PDT

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This information was obtained from [Scott, KD4LT](#)

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[Top Page](#)

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For comments or corrections: [Rein, W6/PA0ZN](#).

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